

CLAIMS:

1. A neck (1) of a synthetic resin bottle comprising:
a round neck wall (2); and
multiple screw threads (3) in a multi-threaded screw structure disposed on the
5 outer surface of said round neck wall (2), each of said screw threads (3)
comprising a main thread (4) in charge of a screwing function,
a starting extension (5) extending from a main thread start point (a) of the
main thread (4) with width and height thereof being reduced gradually from
the dimensions of said main thread (4) and an ending extension (6)
10 extending from a main thread end point (b) of the main thread (4) with
width and height thereof being reduced gradually from the dimensions of
said main thread (4),
wherein the starting extension (5) of a screw thread is vertically disposed
above the ending extension (6) of another screw thread (3), said ending
15 extension (6) having the same length as the starting extension (5), and
wherein said neck (1) is entirely whitened by thermal crystallization.

2. The neck of the synthetic resin bottle according to claim 1 wherein the
starting extension (5) and the ending extension (6) are formed by reducing the
20 width and height gradually at the same, roughly constant rates from a main
thread start point (a) and an main thread end point (b).

3. The neck of the synthetic resin bottle according to claim 1 or 2 wherein
said neck has a multi-threaded screw structure comprising screw threads in a
25 number of n, with n being 2 or a larger integer, wherein main thread zones (f)
amounting to the number of n are formed in a central angle range of a little
less than $360^\circ/n$, in which zones (f) the rows of main threads (4) of at least two
screw threads (3) are disposed obliquely in parallel, with one main thread laid
above the other, and wherein each of thread extension zones (g) is formed
30 between two of said main thread zones (f) that are equally spaced around the
neck, with the starting extension (5) of at least one of said screw threads (3)
being disposed above the ending extension (6) of another screw thread (3) in
each thread extension zone (g).

- 35 4. The neck of the synthetic resin bottle according to claim 1, 2, or 3,
wherein a groove (11) is formed in the outer surface of a round neck wall (2) in
the circumferential direction and disposed at a height above screw threads (3),
at a specified central angle position, and in a specified central angle range to
prevent the occurrence of sinks, which tend to develop in top end face of the
40 round neck wall (2) under the effect of the thermal crystallization treatment.

5. The neck of the synthetic resin bottle according to claim 4, wherein the groove (11) is formed around the neck as intermittent groove segments.

5 6. The neck of the synthetic resin bottle according to claim 3 wherein a groove (11) is formed peripherally in the portions other than the thread extension zones (g) and is disposed in the outer surface of a round neck wall (2) at a height above screw threads (3) to control the sinks caused by thermal crystallization treatment.

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7. The neck of the synthetic resin bottle according to Claim 1, 2, 3, 4, 5, or 6, wherein a bead ring (7) is disposed on the outer surface of the round neck wall (2) right under the threaded area and is used to fit a pilfer-proof cap made of a synthetic resin.

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8. The neck of the synthetic resin bottle according to Claim 7 wherein the neck is of a structure in which the neck ring (8) is disposed below the bead ring (7) and wherein the neck including the bead ring (7) and the neck ring (8) is whitened by the thermal crystallization treatment.

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